

THE SOUTHEAST ALASKA
SOUTHERN SOUTHEAST INSIDE SABLEFISH FISHERY
INFORMATION REPORT
WITH OUTLOOK TO THE 2003 FISHERY



by

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and
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ABSTRACT

The purpose of this document is to provide information on the state managed Southern Southeast Inside sablefish fishery. This report is designed to be used in conjunction with the 2003 Commercial Groundfish Fishing Regulations and active News Releases and Emergency Orders, as these inseason actions will supercede information provided in this document.

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INTRODUCTION

Sablefish (*Anoplopoma fimbria*) are a commercially important species throughout their range, and are typically harvested using longline or pot gear. The Alaska Department of Fish and Game Southeast Region manages two sablefish fisheries, Southern Southeast Inside (SSEI) Subdistrict, locally known as the Clarence Strait sablefish fishery and Northern Southeast Inside (NSEI) Subdistrict, the Chatham Strait sablefish fishery (Figure 1). No sablefish fishery is allowed in state managed outside coastal waters (Figure 2). This report details the commercial longline and pot fishery and management of sablefish in the SSEI Subdistrict.

Sablefish Life History

Sablefish are members of the Anoplopomatidae family that includes sablefish and skillfish. They occur only in the North Pacific Ocean, the Bering Sea, and adjacent waters from Hokkaido, Japan to Baja, California, with the greatest abundance in the Gulf of Alaska (Wolotira et al. 1993). Adult sablefish inhabit the deeper water areas of the continental shelf, the slope, and the deepwater coastal fjords. Most adults live in depths of 366 m to 914 m (200 to 500 fm) although they have been found in depths of less than 183 m (100 fm) to over 1,829 m (1,000 fm) (Allen and Smith 1988).

Sablefish are divided into two populations. The northern population extends from northern British Columbia up through the Gulf of Alaska and westward to Japan. The southern population extends from southern British Columbia to the Baja peninsula. The population subdivision was based on differences in size at maturity, growth, and movement (McDevitt 1990; Saunders et al. 1996)

Sablefish are a long-lived species with fish over age 40 commonly found in commercial samples. Maximum reported age in Alaska is 94 years (Kimura et al. 1998), in Canada, 55 years (McFarlane and Beamish 1983), and in SSEI (from ADF&G survey data, 1988–2001), 60 years. Because sablefish are difficult to age these ages are approximate.

Sablefish spawn in pelagic waters near the edge of the continental slope (300–500 m depth) in the spring of the year (McFarlane and Nagata 1988). Eggs develop at depth and larvae develop near surface waters. Sablefish juveniles exhibit rapid growth, and reside in continental shelf waters, often in bays and nearshore waters, moving to the continental shelf beginning around age 2 (Sigler et al. 2001).

In the Gulf of Alaska, adult sablefish may reach an average maximum length and weight of 69 cm and 3.4 kg for males and 83 cm and 6.2 kg for females (Sigler et al. 2001). Fifty percent of females are sexually mature at 69 cm (6.5 years) and fifty percent of males are mature at 57 cm (5 years) (Sigler et al. 2001).

Adult sablefish are opportunistic feeders, preying on fish (including pollock, eulachon, capelin, herring, sandlance, and Pacific cod) squid, Euphasids and jellyfish (Yang and Nelson 2000). Yearling sablefish primarily feed on Euphasids (Sigler et al. 2001). Juvenile sablefish are eaten by adult coho and chinook salmon and were the fourth most commonly reported prey species in the Alaska Trollers Association logbook program from 1977 through 1984 (Wing 1985).

Natural mortality for sablefish in the Gulf of Alaska is estimated to range from 0.10 (Sigler et al. 2001, Funk and Bracken 1984, Johnson and Quinn 1988) to 0.22 (Low et al. 1976).

No tagging studies have been conducted in the SSEI Subdistrict since 1989, however historical tag data suggests sablefish move in and out of the Clarence and Dixon Entrance areas. This movement has been reported to be dependent on size of release; smaller fish (< 60 cm) moving north and larger fish (>60 cm) moving south (Bracken 1983b).

FISHERY DEVELOPMENT AND HISTORY

History of the Fishery

Sablefish have been harvested in the internal waters of Southeast Alaska since the early 1900s (Bergmann 1975). Prior to 1913 sablefish were primarily landed as incidental catch in the halibut fishery and harvests did not exceed 200 mt until 1916. In 1916 the market name for blackcod was changed to sablefish to improve market demand. In 1917 and 1918 catches exceeded 700 mt and then dropped below 400 mt until 1923 (Bracken 1983a). Halibut longline gear was modified in the late 1940s to specifically target sablefish.

The use of pot gear was first allowed in the sablefish fishery in 1970, and between the years 1973 to 1975 was responsible for an average of 33% of the sablefish harvest in the SSEI Subdistrict. However, by 1979 pot gear was responsible for less than 5% of the catch (Bracken 1983a).

Harvest levels fluctuated widely until the 1970s due to price and more opportunities in other fisheries (Bracken 1983a).

Regulation Development

Management regulations including a guideline harvest range (GHR), a management plan, fishing season and gear specifications are defined separately for the NSEI and SSEI Subdistricts. The GHR for the SSEI Subdistrict is between 250,000 to 500,000 dressed pounds (397,000 to 790,000 round pounds). Since 1997 the fishery has been regulated using an Equal Quota Share (EQS) system. In the EQS system each eligible permit holder is given an equal portion of the annual quota.

This fishery is also regulated using Emergency Orders (EO), an inseason management tool. These orders allow ADF&G to modify published regulations to prevent over harvest of a target or bycatch species. These orders also allow the department to change fishery boundaries and to modify fishery seasons. A list of EOs pertinent to the SSEI sablefish fishery can be found in Table 1.

Regulations on the fishery began in 1980 when a guideline harvest range was established for the SSEI fishery (Table 2). Additional regulations were imposed on the fisheries as effort escalated in the 1980s, primarily in the form of seasonal limitations. Season limitations were placed on the SSEI fishery in 1984, decreasing the number of fishery days from 278 days in 1983 to 48 days in 1984 (Table 3). In 1985, a limited entry program was implemented for the sablefish fishing fleet in the SSEI subdistrict. Fleet effort and efficiency continued to increase, and by 1985 the season was reduced to seven days. In 1991 the number of days fished in SSEI was further reduced to 2.4 days where it remained until 1996.

In 1997, several management actions were implemented including the EQS system. New seasons were established with the longline and pot season separated by summer and fall respectively (Tables 4 and 5). Pot fishermen and longliners experience difficulties when operating fishing gear in the same area at the same time. Longliners turn over gear at a faster rate, (an effective pot set requires a 24 to 36 hour soak vs. less than a 12 hour soak for longliners), and there were entanglement issues as well between the two gear types. By creating a split season, with a longer duration, the entanglement issue between the two gear types was resolved, and pot fishers were enabled to more effectively utilize their gear. The season length was changed and the pot season was set for 2.5 months and the longline season was extended to 1.5 months (Table 3). The Alaska Board of Fisheries also passed a regulation requiring all vessels participating in state managed groundfish fisheries to maintain an official state logbook (Appendix B).

In 1999 the overall annual harvest objective (AHO) was increased by 9% to 696,000 round pounds for both the longline and pot fisheries. The EQS was set at 24,000 round pounds based on a fleet size of 29 eligible permits. However, commercial fishery entry commission's original calculation was incorrect and there were in fact 30 eligible permit holders. Therefore the total AHO was increased to 720,000 round pounds to maintain the individual quota at 24,000 round pounds (Table 3). This was still within the GHR of 790,000 round pounds established for SSEI in 1980.

In 2000 the Alaska Board of Fisheries extended the SSEI longline season from 45 days to 76 days. This made it consistent with the number of fishery days in the SSEI pot sablefish fishery and the NSEI longline sablefish fishery. Another regulation introduced in 2000 was a requirement that fishers retain all rockfish caught in the NSEI and SSEI subdistricts.

Participation

In 1985 CFEC imposed a license limitation in the SSEI sablefish fishery. After limited entry was implemented the fishery included 43 participants. Successive years showed some fluctuation in the number of permit holders actually fishing SSEI (23–34 permits). In 1997, there were 30 longline permits and five pot permits authorized to fish SSEI. In 1998 one pot and one longline interim use permit were eliminated. Three longline interim use permits were also eliminated in 1999 and another one in 2000. This brought the total number of participants eligible to fish SSEI sablefish to 25 longline permits and four pot permits. These permit numbers remained the same for the 2001 and 2002 fisheries. In 2003 one longline permit was eliminated bringing the total number of permits to 24 longline and 4 pot. The goal of CFEC in the SSEI fishery is 12 longline permits and 3 pot permits. To date 4 longline permits and 1 pot permit have been granted as transferable. All other permits are in the review or appeal process.

Quotas and Catch

In 1980 the SSEI sablefish AHO was set at 790,000 round pounds (based on historical catches), where it remained until 1997. In 1998 the SSEI survey showed an 18% decrease in catch per unit effort (CPUE) and as a result, the AHO for the longline and pot fishery combined was reduced to 632,000 round pounds. In 1999 an increase in the survey CPUE resulted in an AHO of 696,000 round pounds, where it has remained through the 2001 season.

In the years between 1986 and 1997 the AHO was exceeded on four occasions. In 1989 the AHO was set at 790,000 round pounds, the total commercial catch was 963,089 round pounds of sablefish. The AHO (790,000 round pounds) was again exceeded in 1992, 1993, and 1994, in which 941,183 round pounds, 824,011 round pounds and 866,788 round pounds were landed in the commercial fishery respectively. The AHO has not been exceeded since the inception of the EQS system (1997).

The 2000 and 2001 SSEI sablefish longline fishery closed by regulation on August 15, and 24 of the 25 permit holders eligible to fish in this commercial longline fishery participated. The four eligible pot gear permit holders also fished these years. The total sablefish landings from the SSEI sablefish fishery, both longline and pot, were 590,420 and 650,434 round pounds in 2000 and 2001 respectively (Table 3). The estimated value of the 2000 and 2001 SSEI sablefish fishery to the commercial fleet was approximately \$1,176,025 and \$1,248,833 respectively. In addition, the State of Alaska received \$9,069 in 2000 and \$3,839 in 2001 in overage payments from those year's fisheries.

The 2002 SSEI sablefish longline fishery closed by regulation on August 15, and 24 of the 25 permit holders eligible to fish in this commercial longline fishery participated. All four eligible pot gear permit holders also fished. The total sablefish landings from the SSEI sablefish fishery, both longline and pot, totaled 650,339 round pounds. The estimated exvessel value of the 2002 fishery was \$1,275,868 in addition the state received \$5,300 in overage payments.

The exvessel value of sablefish has increased relative to other fisheries, therefore making sablefish the most valuable finfish currently sold in Southeast Alaska and Gulf of Alaska waters.

Methods for Data Collection

Port samplers, located in major ports of landing, collect biological data specific to the SSEI commercial sablefish fishery. Data gathered includes length, weight, sex, and otoliths, which are collected and aged using the break-and-burn technique. Biological sampling in the SSEI fishery began on a regular basis in 2002. Prior to that time samples were taken during the SSEI longline survey only.

Logbooks are mandatory for this fishery. Information collected includes date gear set, date gear hauled, location (in latitude and longitude) of each set, description and amount of gear set, and estimation of target catch and bycatch for each set. A copy of this logbook is required to be turned into the State along with a fish ticket documenting the landing.

Fishery CPUE

Results

Commercial longline CPUE expressed as round pounds per hook remained relatively stable between 1985–1995 (Figure 4). In 1997 the second year of the EQS, CPUE increased significantly from 0.171 to 0.36 reaching a max of 0.461 in 1999. The maximum was followed by a decline thru 2001, with a significant decline between 2000 and 2002. In 2002 CPUE again upturned to .411. This is similar to the trends seen in the research survey, a drop in 2001 followed by an increase in 2002. The 10-year annual average CPUE was 0.316 between 1993 and 2002 and the 5-year average (1998–2002) was 0.394.

This decline is similar to that experienced in the SSEI longline survey, where CPUE dropped 32% between 2000 and 2001.

Discussion

Under the EQS management, CPUE has increased compared to previous fisheries. This is not unexpected, all other things being similar, as fishers under the EQS system can choose to fish during good tide and weather conditions (Sigler and Lundsford 2001).

In 2001 a significant change in fishing pattern was seen in the commercial longline fishery. This shift in effort may have contributed to a decline in CPUE, however the survey CPUE was down markedly in 2001 as well (Figure 5).

Bycatch

Results

A total of 107,149 round pounds of bycatch was landed in the 2001 SSEI sablefish fishery. This was roughly 164% of the bycatch landed in the 2000 fishery (Figure 6). The primary bycatch species landed in the SSEI fishery consists of thornyhead and shortraker rockfish.

Discussion

In 2001 there was a significant increase (approximately 200%) in the amount of shortraker rockfish landed. In part this increase could be attributed to an increase in sablefish quota/catch. Also, fishing patterns changed in the 2001 longline fishery with at least one new statistical area being fished more heavily than in previous years (Figure 5). New regulations, introduced in 2000, that required full retention of all rockfish species, could also explain an increase in bycatch landed in the 2001 fishery. Bycatch species landed incidental to the SSEI sablefish fishery include thornyhead, rougheye, shortraker, redbanded rockfish, and Pacific cod. Skates, Dover sole, and Pacific sleeper sharks are also taken as bycatch but are not usually landed.

SSEI LONGLINE SURVEY

History of SSEI Sablefish Surveys

In 1988 the Alaska Department of Fish and Game (ADF&G) began conducting an annual longline research survey in the SSEI area to assess the relative abundance of sablefish over time. Department surveys are conducted a few weeks prior to the fishery because historically this was when surveys took place. Surveys are still conducted a few weeks prior to the season opening to maintain consistency with historic survey data. However management decisions are no longer based on survey results of the current years survey alone.

Fixed sampling stations have been randomly assigned within statistical subareas in both Chatham and Clarence Straits, below the 200-fathom edge, where the majority of the commercial fishing effort is focused. The department extended the survey into the Dixon Entrance area in 1996 because 55% of the fleet effort (in 1995) was concentrated in this area. Once established, the same stations are fished in a similar manner each year in order to estimate change in relative abundance over time. In 1997 survey methods changed. Instead of soaking gear for 1 hour, survey gear was allowed to soak for 3–11 hours.

Methods for Data Collection

ADF&G personnel aboard contracted commercial fishing vessels collect biological information specific to the Clarence Strait sablefish fishery during annual longline surveys. Thirty-eight stations are fished using 25 skates of gear per station. Each skate consists of 45 hooks. Current procedures allow survey gear to soak for 3-11 hours.

Set information collected by ADF&G staff includes date, year, project description, trip number, set number, station number, statistical area, and area description.

Skipper or ADF&G staff will record: a) start and stop latitude and longitude for each set, b) time the second anchor goes overboard, c) depth as each skate goes out, d) record haul back order, e) wind direction, f) estimate wind speed, and g) skipper will choose a substrate code based on the sounder's information. Substrate codes are somewhat problematic because the view of the bottom on sounders indicates either a hard or soft substrate. In previous years skippers have been able to describe the substrate as mud, rocky, coral etc., most likely from what comes up on the line.

Biological information collected includes, length, weight, sex, and sexual maturity. Otoliths are collected and aged using the break-and-burn technique.

Growth

Results

A length-weight regression calculating the parameters $W = aL^b$ is depicted in Figure 7. This relationship for sablefish, sampled from the SSEI survey (1988 through 2000), was calculated at $W = .00000589L^{3.129155}$ (Table 6). Data for all years was combined, however both males and females were plotted separately. Results show an exponential increase in weight gain (for both males and females), with increasing length (Figure 7). The relationship in length to weight showed no differences between male and female sablefish. However, the data shows female sablefish attained a larger size than males.

Von Bertalanffy growth parameters (predicting length at age) were calculated using 1988 through 2000 SSEI survey data, and a graph showing this relationship is presented in Figure 5. Growth parameters were calculated separately for male and female sablefish. Results show an increased growth for females in the first 15–20 years, with the increase maintaining itself through to senescence. Results of this model are listed in Table 7 (Figure 8).

Average weight of sablefish sampled during the SSEI sablefish survey (1991–2001) shows fish size over the past 10 years has remained relatively stable, with an increasing trend since 1999 (Figure 9).

Discussion

Length-weight parameters shown in Figure 7 show no difference in the length to weight regression for male and female sablefish.

Von Bertalanffy growth parameters (predicting length at age) were calculated for male and female sablefish separately because sample sizes for each sex was large enough, and it has been well documented that female sablefish grow at a faster rate than males. Results show a leveling in growth (length) after age 18, making a length frequency chart invalid as a predictor of age.

Age Frequency

Results

Average age in the SSEI survey data (1993–2001), is estimated at eight years, with a range from two to 47 years of age. The age frequency data from the SSEI Subdistrict longline survey shows a strong 1992 or 1993 year class with five-year olds strong in 1998 and eight-year olds strong in 2000.

Discussion

Due to the lack of distinct progression in the age data (Figures 10a and 10b), ADF&G does not use an age-structured model to estimate sablefish abundance and subsequently make management decisions. Difficulties in ageing sablefish may contribute to the lack of age classes thru the time series. However tagging data indicates immigration of juvenile sablefish into Clarence Strait/Dixon Entrance area from Northern British Columbia and the emigration of adult sablefish moving out of the Clarence Strait/Dixon Entrance area into British Columbia (Bracken 1983b). This movement would also result in the lack of progression of year classes in age distribution.

Length Frequency

Results

Sablefish sampled in Clarence Strait longline surveys between the years 1983 and 2001 had a maximum length of 97 cm for females and 81 cm for males. The length frequency data from the SSEI Subdistrict longline survey shows no distinct cohorts moving through the population.

Discussion

Length frequency distributions from research surveys generally show a uni-modal distribution, however bi-modal distributions do appear in specific years. 1995 is a good example of a bi-modal distribution (Figure 10a). A possible explanation for this change in length distribution could be the immigration of juvenile sablefish into the Clarence Strait/Dixon Entrance area from Northern British Columbia and the

emigration of adult sablefish moving out of the Clarence Strait/Dixon Entrance area into British Columbia. This change could also be an artifact of sampling.

Survey CPUE

Results

The SSEI longline survey CPUE expressed in round pounds per hook has shown a general increase over the past five years (Figure 11). The five-year average in the SSEI survey is .81 round pounds per hook. In 2001 survey CPUE in SSEI decreased significantly (32%) from the 2000 CPUE (Figure 11). In 2002 survey CPUE increased to 0.901 round pounds/hook.

Discussion

Soak time was increased from one hour to 3–11 hours in 1997. The relationship between one-hour soak time and 3–11 hour soak time has not been fully studied and therefore does not allow for a direct comparison of the two sets of data (Figure 11).

STOCK ASSESSMENT AND MANAGEMENT

The SSEI sablefish stock assessment consists of an annual longline survey, which yields Age Weight Length (AWL) and CPUE data. Other stock assessment models are currently being investigated in an attempt to estimate absolute sablefish biomass in the SSEI Subdistrict. The Alaska Department of Fish and Game has begun to evaluate age structured analysis (ASA) as one possible analytical approach for estimating abundance, this work is still in the formative stage, and results of an ASA to determine the SSEI quota has not been used.

2003 SEASON OUTLOOK

The 2003 SSEI sablefish annual harvest objective is 696,000 round pounds for the combined longline and pot fisheries. There are 24 longline and four pot permits eligible to fish in 2003, therefore the equal quota share will be approximately 24,860 round pounds.

At the January 2003 Alaska Board of Fisheries Meeting several proposals that had implications on the SSEI sablefish fishery were voted on, the proposals that passed will take effect during the 2003 season (Table 2).

Permits and Paperwork Needed to Fish in SSEI Sablefish Fishery

- Valid CFEC limited entry permit card specific to the SSEI Sablefish Fishery.
- ADF&G Vessel license.
- Vessel registration filed prior to fishing and kept onboard while fishing.
- Logbook completed daily, copies kept on board the vessel for the duration of the fishery, including a record of the round weight delivered to date if multiple deliveries are made per season and pages documenting the landing attached to the fish ticket at the time of landing. Use of ADF&G Longline-Pot Fishery Logbooks is requested. ADF&G logbooks are available at ADF&G offices.
- Valid CFEC permit card for Miscellaneous Finfish if intending to retain bycatch beyond what is allowable legal bycatch on a sablefish permit card.

Applications for CFEC gear cards, emergency transfer requests, and ADF&G vessel registrations are available at ADF&G offices or on the web at <http://www.cfec.state.ak.us/mnuaf.htm>

Delivering Fish Out of State

Delivering fish out of state takes prior planning, well in advance of fishing, as several agencies and permits are required. In order to take unprocessed fish out of the state, an individual or company must have an exporter license. There are two different types of exporter licenses, buyer or catcher. The buyer can buy from fishers and export unprocessed fish while the catcher can only export their own catch. The Department of Revenue requires the exporter to be bonded and prepay taxes before they can operate. All processor and exporter applications are together in the “2002 Alaska Seafood Processor and Exporter License and Permit Application: Intent to Operate.” The web link for this application is:

<http://www.cf.adfg.state.ak.us/geninfo/permits/intent/instruct.pdf>

Fishers are required to complete a fish ticket and a physical copy of that fish ticket must be provided to ADF&G before the vessel leaves the state. A completed fish ticket must include:

1. Weight of each species with the corresponding condition (delivery) code (i.e., round, bled, headed, and gutted etc.)
2. An imprint of the valid CFEC gear card.
3. An imprint of a valid Alaskan processor code.
4. A breakdown by percentage of the groundfish statistical areas fished.
5. Signatures of fisher and processor (or agent of the processor) at bottom of the fish ticket.
6. A completed logbook documenting the landing must be attached to the ticket.

If fish weights are estimated, a completed fish ticket with final weights must be returned to ADF&G within seven days of landing. If the processor is someone other than the fisher, ADF&G must have a letter authorizing the use of the Alaskan processor code used on the fish ticket before the ticket is completed and filed with the department.

SABLEFISH REGULATIONS

5 AAC 28.110. SABLEFISH FISHING SEASONS FOR EASTERN GULF OF ALASKA AREA.

- (a) In the Eastern Gulf of Alaska Area, sablefish may be taken only as follows:
 - (1) in the Northern Southeast Inside Subdistrict, from 8:00 am September 1 until 12:00 noon November 15;
 - (2) in the Southern Southeast Inside Subdistrict, from 8:00 am June 1 until 12:00 noon August 15 with longline gear, and from 8:00 am September 1 until 12:00 noon November 15 with pot gear.
- (b) Repealed

5 AAC 28.160 HARVEST GUIDELINES AND RANGES FOR EASTERN GULF OF ALASKA AREA.

- (a) In the Northern Southeast Inside Subdistrict, the guideline harvest range for the taking of sablefish is 1,590,000 to 4,800,000 pounds in round weight (721 to 2,177 m.t.)
- (b) In the Southern Southeast Inside Subdistrict, the guideline harvest range for the taking of sablefish is 400,000 to 790,000 pounds in round weight (181 to 358 m.t.).

5 AAC 28.170. SABLEFISH POSSESSION AND LANDING REQUIREMENTS FOR EASTERN GULF OF ALASKA AREA.

- (a) The operator of a vessel taking sablefish in the Northern or Southern Southeast Inside Subdistrict shall, before taking sablefish in another area, unload all sablefish taken in either Subdistrict and submit a completed fish ticket to the department.
- (b) The operator of a fishing vessel may not take sablefish in the Northern or Southern Inside Subdistricts with sablefish taken in another area on board.
- (c) In the Northern and Southern Southeast Inside Subdistricts, and in the waters of Alaska within the Southeast Outside Subdistricts, a sablefish bearing a fisheries agency tag at the time of capture may be retained and sold at any time, if the fish is landed with the tag intact and the recovery is reported to the department at the time of landing. The tagged fish must be presented to a local representative of the department upon request.

- (d) Repealed 6/15/95.
- (e) Repealed 11/16/96.
- (f) In the Northern Southeast Inside Subdistrict, the holder of a CFEC permit or interim use permit for sablefish may not take more than the annual amount of sablefish specified by the department. The department shall determine the annual amount by dividing the annual harvest objective, not to exceed 4,800,000 round pounds, by the number of CFEC permits and interim use permits issued for the fishery. The department shall establish the annual harvest objective based on information, including harvest rate and biological information, gathered during the department's pre-season stock assessment survey.
- (g) In the Southern Southeast Inside Subdistrict, the holder of a CFEC permit or interim use permit for sablefish may not take more than the annual amount of sablefish specified by the department. The department shall determine the annual amount by dividing the annual harvest objective, not to exceed 790,000 round pounds, by the number of CFEC permits and interim use permits issued for the fishery. The department shall establish the annual harvest objective based on information, including harvest rate and biological
- (h) information, gathered during the department's pre-season stock assessment survey.
- (i) In the portion of the Southeast Outside Subdistrict that is state waters under 5 AAC 39.975 (13), retention of sablefish is prohibited.
- (j) When participating in the sablefish fishery in the Northern Southeast Inside Subdistrict or Southern Southeast Inside Subdistrict, a person holding a CFEC permit or interim use permit for that fishery must retain in the person's possession and present for inspection onboard the vessel on which that person is registered to fish, a copy of each completed fish ticket issued to the person for the current season.

5 AAC 28.130 LAWFUL GEAR FOR EASTERN GULF OF ALASKA AREA.

- (a) In the Northern Southeast Inside Subdistrict, the Southeast Outside Subdistrict, and the East Yakutat District, sablefish may be taken only with longlines. In the Southern Southeast Inside Subdistrict, sablefish may be taken only with longlines and pots.
- (f) In the Eastern Gulf of Alaska Area, pots may not be longlined. At least one buoy on each groundfish pot must be legibly marked with only the permanent department vessel license plate number of the vessel operating the gear. The number must be placed on the top one-third of the buoy in numerals at least four inches high and one-half inch wide, must be in a color contrasting to the color of the buoy, and must be visible above the water surface when the buoy is attached to the groundfish pot.
- (i) Notwithstanding (f) of this section, in the Southern Southeast Inside Subdistrict, pots may be longlined when fishing for sablefish.

5 AAC 39.145 ESCAPE MECHANISM FOR SHELLFISH AND BOTTOMFISH POTS.

Pot gear must include an escape mechanism in accordance with the following provisions:

- (1) A sidewall, which may include the tunnel, of all shellfish and bottomfish pots must contain an opening equal to or exceeding 18 inches in length, except that in shrimp pots the opening must be a minimum of six inches in length. The opening must be laced, sewn, or secured together by a single length of untreated, 100 percent cotton twine, no larger than 30 thread. The cotton twine may be knotted at each end only. The opening must be within six inches of the bottom of the pot and must be parallel with it. The cotton twine may not be tied or looped around the web bars. Dungeness crab pots may have the pot lid tie-down straps secured to the pot at one end by a single loop of untreated, 100 percent cotton twine no larger than 60 thread, as a substitute for the above requirement; the pot lid must be secured so that, when the twine degrades, the lid will no longer be securely closed.
- (2) All king crab, Tanner crab, shrimp, miscellaneous shellfish, and bottomfish pots may, instead of complying with (1) of this section, satisfy the following: a sidewall, which may include the

tunnel, must contain an opening at least 18 inches in length, except that shrimp pots must contain an opening at least six inches in length. The opening must be laced, sewn, or secured together by a single length of treated or untreated twine, no larger 36 thread. A galvanic timed released (GTR) device, designed to release in no more than 30 days in salt water, must be integral to the length of twine so that, when the device releases, the twine will no longer secure or obstruct the opening of the pot. The twine may be knotted only at each end and at the attachment points on the galvanic timed-release device. The opening must be within six inches of the bottom of the pot and must be parallel with it. The twine may not be tied or looped around the web bars.

5 AAC 28.180. PROHIBITIONS FOR EASTERN GULF OF ALASKA AREA.

- (a) A vessel or a person on board a vessel from which commercial, subsistence, or personal use longline fishing gear was used to take fish in the Northern or Southern Southeast Inside Subdistrict during the 72-hour period immediately before, or from which that gear will be used during the 24-hour period immediately after an open sablefish fishing period, may not participate in the taking of sablefish in either Subdistrict during that open sablefish fishing period.

5 AAC 28.106. EASTERN GULF OF ALASKA AREA REGISTRATION.

- (b) Notwithstanding 5 AAC 28.020(a), before a person uses a vessel to operate gear to take sablefish in the Northern Southeast Inside (NSEI) Subdistrict or the Southern Southeast Inside (SSEI) Subdistrict, the vessel owner, or the owner's agent, shall register the vessel with the department as follows:
 - (1) the vessel must be registered before fishing in the sablefish fishery;
 - (2) the vessel owner or the owner's agent, shall include on the registration form the vessel's name and the full name and CFEC permit number or interim use permit number of each sablefish permit holder who will be on board the vessel during the open fishing period;
 - (3) the vessel owner, or the owner's agent, shall sign the registration form;
 - (4) a person who holds a CFEC sablefish permit or interim use sablefish permit for the NSEI Subdistrict or for the SSEI Subdistrict may not register to fish on more than one vessel at a time;
 - (5) a separate registration is required for each Subdistrict.

5 AAC 28.175. LOGBOOKS FOR EASTERN GULF OF ALASKA AREA.

- (a) An operator of a vessel fishing for groundfish in the waters of Alaska in the Eastern Gulf of Alaska Area or in a state-managed directed fishery in the waters of the exclusive economic zone adjacent to the Eastern Gulf of Alaska Area shall maintain an accurate logbook of all fishing operations for each type of gear used.
- (b) A logbook described in (a) of this section
 - (1) for longline gear must include the date, the specific location of harvest by latitude and longitude within one-half mile of set, the amount of gear (number of hooks) used, the depth of each set, the estimated weight of all target species taken in the directed fishery in each specific location, and an estimated weight of the bycatch retained or discarded at sea; for the Northern Southeast Inside Subdistrict and the Southern Southeast Inside Subdistrict sablefish fisheries, a logbook must include a record of the round weight delivered, the purchasing processor, and date of each delivery during that season if multiple landings have been made;
 - (3) must be updated, within 24 hours after midnight local time on the day of operation; and
 - (4) must be retained, with its original pages, for a period of two years by the owner or operator of the vessel.
- (c) A logbook described in (a) of this section must be kept on board the vessel while operating gear, during transits to or from a port of landing, and for five days after delivering groundfish.
- (d) Repealed 6/15/97.

- (e) A logbook described in (a) of this section must be made available to a local representative of the department upon request.
- (f) A copy of the page of the logbook described in (a) in this section pertaining to a landing must be attached to the fish ticket documenting the landing.
- (g) A person may not make a false entry in the logbook described in (a) of this section.

5 AAC 28.105. DESCRIPTION OF EASTERN GULF OF ALASKA AREA DISTRICTS, SUBDISTRICTS, SECTIONS, AND SECTORS (a) Southeast District: all waters described in 5 AAC 28.100.

- (1) Southern Southeast Inside (SSEI) Subdistrict: All waters of Dixon Entrance, Clarence Strait, Ernest Sound, Behm Canal, Bradfield Canal, Sumner Strait, Cordova Bay, Tlevak Strait, Bucarelli Bay, Gulf of Esquibel, Davidson Inlet, Sea Otter Sound, Stikine Strait, Blake Channel, Zimovia Strait, Eastern Passage, and contiguous bays and inlets and that portion of Frederick Sound, bordered by a line from 54°43.50' N. lat., 130°37.62' W. long. to 54°43.40' N. lat., 130°37.65' W. long. to 54°43.25' N. lat., 130°37.73' W. long. to 54°43' N. lat., 130°37.92' W. long. to 54°42.97' N. lat., 130°37.95' W. long. to 54°42.78' N. lat., 130°38.10' W. long. to 54°42.37' N. lat., 130°38.43' W. long. to 54°41.15' N. lat., 130°38.97' W. long. to 54°39.90' N. lat., 130°38.97' W. long. to 54°39.23' N. lat., 130°39.30' W. long. to 54°39.80' N. lat., 130°41.58' W. long. to 54°40.05' N. lat., 130°42.37' W. long. to 54°40.70' N. lat., 130°44.72' W. long. to 54°40.68' N. lat., 130°44.98' W. long. to 54°40.77' N. lat., 130°45.85' W. long. to 54°41.10' N. lat., 130°48.52' W. long. to 54°41.08' N. lat., 130°49.28' W. long. to 54°41.35' N. lat., 130°53.30' W. long. to 54°41.43' N. lat., 130°53.65' W. long. to 54°42.45' N. lat., 130°56.30' W. long. to 54°42.57' N. lat., 130°57.15' W. long. to 54°43' N. lat., 130°57.68' W. long. to 54°43.77' N. lat., 130°58.92' W. long. to 54°44.20' N. lat., 130°59.73' W. long. to 54°45.65' N. lat., 131°03.10' W. long. to 54°46.27' N. lat., 131°04.72' W. long. to 54°42.18' N. lat., 131°13' W. long. to 54°40.87' N. lat., 131°13.90' W. long. to 54°39.15' N. lat., 131°16.28' W. long. to 54°36.87' N. lat., 131°19.37' W. long. to 54°29.88' N. lat., 131°33.80' W. long. to 54°30.53' N. lat., 131°38.02' W. long. to 54°28.30' N. lat., 131°45.33' W. long. to 54°26.68' N. lat., 131°49.47' W. long. to 54°21.85' N. lat., 132°02.90' W. long. to 54°24.87' N. lat., 132°23.65' W. long. to 54°24.68' N. lat., 132°24.48' W. long. to 54°24.68' N. lat., 132°24.58' W. long. to 54°24.65' N. lat., 132°26.85' W. long. to 54°25.33' N. lat., 132°41.53' W. long. to the Cape Muzon Light to the northernmost tip of Eagle Point on Dall Island and passing successively through the southernmost tip of Point Arboleda, the northernmost tip of Point San Rogue, the southernmost tip of Cape Ulitka, the northernmost tip of Cape Lynch to the southernmost tip of Helm Point, and from a point west of Gish Bay at 55°54.53' N. lat., 134°12.50' W. long. to the Cape Decision Light and from Point Camden to Salt Point Light on Keku Strait and from Beacon Point to Wood Point;
- (2) Northern Southeast Inside (NSEI) Subdistrict: All waters of Frederick Sound, Stephens Passage, Lynn Canal, Icy Strait, Glacier Bay, Chatham Strait, and contiguous bays and inlets bordered by a line from Beacon Point to Wood Point, from Point Camden to Salt Point Light, the Cape Decision Light to a point west of Gish Bay at 55°54.53' N. lat., 134°12.50' W. long. to the southernmost tip of Helm Point to the westernmost tip of Hazy Island to the Cape Ommaney Light, north of 57°30' N. lat. in Peril Strait, from the westernmost tip of Column Point to the northernmost tip of Soapstone Point and from the southernmost tip of Cape Spencer through Yakobi Rock to Yakobi Island;
- (3) Icy Bay Subdistrict: All waters of the Southeast District between 140° W. long., including Yakutat Bay three miles seaward of a line from Ocean Cape at 59°30' N. lat.;
- (4) Southeast Outside Subdistrict: All remaining waters of the Southeast District:
 - (A) Southern Southeast Outside (SSEO) Section: all waters of the Southeast Outside Subdistrict south of 56° N. lat., and east of 137° W. long.;

- (B) Central Southeast Outside (CSEO) Section: all waters of the Southeast Outside Subdistrict between 56° N. lat. and 57°30' N. lat., and east of 137° W. long.;
- (C) Northern Southeast Outside (NSEO) Section: all waters of the Southeast Outside Subdistrict north of 57°30' N. lat., and east of 137° W. long.;
- (D) East Yakutat (EYKT) Section: all waters of the Southeast Outside Subdistrict between 137° and 140° W. long.

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Table 1. History of inseason actions taken in the SSEI state managed sablefish fishery.

Species	EO #	Date Issued	Action	Date of NR
Sablefish	7	05/29/67	Allowed as bycatch for halibut not >10%	
Sablefish	29	11/23/71	Extension of SSEI season. 5/15-12/15	
Sablefish	36	10/12/73	Modified season for dist. 9-15 (8/24-10/29)	
Sablefish	1-M-01-77	02/07/77	Established a year around season for districts 4,16 & sections 13-A, 13-B. 2/8	
Sablefish	1-M-01-78	01/09/78	Established a year around season for districts 4,6 & sections 13-A, 13-B. 1/9	
Sablefish	1-M-5-79	09/24/79	Announced 10/4 closure	
Sablefish	1-M-6-81	10/01/81	Announced 10/10 closure	
Sablefish	1-M-8-82	07/23/82	Announced 08/02 closure to a portion of SEO	
Sablefish	1-M-10-82	09/14/82	Announced 09/30 closure of SSEI area	
Sablefish	1-M-10-83	10/05/83	Reopened N area, announces closure of S area on 10/14	
Sablefish	I-M-15-84	8/22/84	Closes district 9,10,11,12, sec.13-C, district 14 and 15 on 9/5/84	
Sablefish	I-M-10-85	6/14/85	Opens SSEI and Dixon Entrance on 6/15	
Sablefish	I-M-11-85	6/19/85	Closes SSEI and Dixon Entrance on 6/22	
Sablefish	I-M-5-86	4/14/86	Closes district 4,16,13,13-A, 13-B,Dixon Entrance 4/17	
Sablefish	I-M-8-86	6/19/86	Closes the SSEI 6/22	
Sablefish	I-M- 8-87	4/8/87	Closes districts 4 &16, sections 13-A and 13-B, and Dixon Entrance on 4/9	
Sablefish	I-M-11-87	6/1/87	Season for SSEI, including districts 1,2,3,4,5,6,7 and 8 and Dixon Entrance from 6/18 to 6/23	
Sablefish	I-M-6-88	4/29/88	Closes the SE/EYKT and WYKT areas (including dist. 4 &16, section 13-A, 13-B), Dixon Entrance west of C. Muzon, & all state waters of Yakutat on 5/2	
Sablefish	I-M-10-88	6/1/88	Sets season for SSEI from 6/5 to 6/10	
Sablefish	I-M-9-89	4/17/89	Closes SE/EYKT and WYKT (including district 4 & 16, sections 13-A & 13-B), Dixon Entrance west of C. Muzon and all state waters of Yakutat area east of 147 long. on 4/17	
Sablefish	I-M-13-89	5/10/89	Opens the SSEI from 6/22 to 6/27	
Sablefish	I-M-05-90	6/15/90	Opens the SSEI 6/15 to 6/18	
Sablefish	I-M-13-91	4/26/91	Opens Southeast Outside Subdistrict, EYKT district and W. Yakutat district on 5/15	
Sablefish	I-M-15-91	6/13/91	Opens the SSEI 6/21 to 6/23	
Sablefish	I-M-09-94	6/13/94	Opens the SSEI 6/15 to 6/17	6/1/94
Sablefish	I-M-16-95	4/6/95	Closes SEO and WYKT on 4/5	

-continued-

Table 1. (page 2 of 2)

Species	EO #	Date Issued	Action	Date of NR
Sablefish	I-G-11-96	6/6/96	Opens the directed season for sablefish in SSEI on 6/8 for 48 hrs.	5/21/96
Sablefish	I-G-14-96	9/4/96	Opens the season for bycatch allowances for SSEI and NSEI. 9/4	
Sablefish	I-G-03-97	3/10/97	Prohibits harvesting of sablefish in state waters of Southeast Outside Subdistrict and the state waters of the eastern Gulf between 140 & 147 W. longitude. 3/15	3/7/97
Sablefish	I-G-7-97	6/15/97	Opens and closes the directed season for longline gear in SSEI 6/15 to 7/30	5/21/97
Sablefish Bycatch	I-G-11-98	08/25/98	Opened bycatch allowances for state managed sablefish fisheries. 8/25 to 12/31.	08/25/98

Table 2. Management overview for the SSEI sablefish fishery.

1980	A guideline harvest range of 790,000 round pounds was set.
1984	Season limitations were placed on the fishery, from 278 days to 48 days.
1985	<ul style="list-style-type: none"> • Season limitations were placed on the fishery, from 48 days to 7 days. • Fishery went limited entry.
1987	Season limitations were placed on the fishery, from 7 days to 5 days.
1990	Season limitations were placed on the fishery, from 5 days to 3 days.
1991	Season limitations were placed on the fishery, from 3 days to 2.4 days.
1996	Season limitations were placed on the fishery, from 2.4 days to 2 days.
1997	<ul style="list-style-type: none"> • A shared quota system was implemented. • Pot gear permit holders re-enter the fishery. • Longline and pot season split, summer and fall respectively. • Longline season was extended to 1.5 months. • Pot season was set at 2.5 months.
1998	A guideline harvest range of 632,000 round pounds was set.
1999	A guideline harvest range of 696,000 round pounds was set.
2000	Longline season was extended to 2.5 months.
2003	<ul style="list-style-type: none"> • It became prohibited to catch and use sablefish for bait, from the NSEI and SSEI Subdistricts. • A 5% sablefish overage/underage could be carried over to the following season.

Table 3. The sablefish annual harvest objective, equal quota share, reported harvest, value and effort for the SSEI sablefish fisheries, 1985 through 2002.*

Year	Annual Harvest Objective	Equal Share Quota	Longline Fishery					Pot Fishery			
			Round lbs Reported	Exvessel Value	No. of Permits	CPUE (Rnd. Lbs./ Hook)	No. of Days	Round lbs Reported	Exvessel Value	No. of Permits	No. of Days
1985	790,000	NA	511,617	\$322,319	43	0.232	7				
1986	790,000	NA	554,121	\$260,436	22	0.280	7	Confidential	Confidential	2	7
1987	790,000	NA	435,501	\$291,785	22	0.185	5	Confidential	Confidential	1	5
1988	790,000	NA	712,787	\$719,914	26	0.228	5	Confidential	Confidential	1	5
1989	790,000	NA	952,231	\$714,173	31	0.242	5	Confidential	Confidential	1	5
1990	790,000	NA	758,663	\$553,823	29	0.248	3	0	0	0	3
1991	790,000	NA	679,623	\$625,253	30	0.211	2.4	Confidential	Confidential	1	2.4
1992	790,000	NA	936,811	\$936,811	29	0.269	2.4	Confidential	Confidential	1	2.4
1993	790,000	NA	824,011	\$815,770	27	0.219	2.4	0	0	0	2.4
1994	790,000	NA	866,788	\$1,066,149	30	0.210	2.4	0	0	0	2.4
1995	790,000	NA	678,762	\$1,323,585	28	0.227	2.4	0	0	0	2.4
1996	790,000	NA	502,459	\$899,401	28	0.171	2	0	0	0	2
1997	790,000	23,200	608,789	\$1,345,423	29	0.360	45	116,281	\$256,981	5	76
1998	632,000	20,400	496,210	\$699,656	27	0.366	45	81,846	\$113,765	4	76
1999	696,000	24,000	565,190	\$1,006,038	25	0.461	45	96,234	\$193,430	4	76
2000	696,000	24,000	494,133	\$988,804	24	0.420	76	96,287	\$187,760	4	76
2001	696,000	24,000	554,247	\$1,064,154	24	0.314	76	96,188	\$184,679	4	76
2002	696,000	24,000	554,074	\$1,074,904	24	0.411	76	92,265	\$203,983	4	76

* The data includes only data from the directed fishery and does not include fish taken during the test fish fishery, illegally as bycatch in other fisheries, or reported used as bait.

Table 4. SSEI sablefish longline fishery opening dates, fishing periods and landings.

Management Subdistrict	Year	Opening Date	Closing Date	Landings
SSEI	1985	6/15	6/22	Unk
SSEI	1986	6/15	6/22	32
SSEI	1987	6/18	6/23	28
SSEI	1988	6/5	6/10	33
SSEI	1989	6/22	6/27	41
SSEI	1990	6/15	6/18	31
SSEI	1991	6/21	6/23	30
SSEI	1992	6/23	6/25	32
SSEI	1993	6/25	6/27	28
SSEI	1994	6/15	6/17	31
SSEI	1995	6/20	6/22	29
SSEI	1996	6/8	6/10	28
SSEI	1997	6/15	7/30	70
SSEI	1998	6/1	7/15	65
SSEI	1999	6/1	7/15	58
SSEI	2000	6/1	8/15	63
SSEI	2001	6/1	8/15	74
SSEI	2002	6/1	8/15	67

Table 5. SSEI sablefish pot fishery opening dates, fishing periods, and landings.

Management Subdistrict	Year	Opening Date	Closing date	Landings
SSEI	1985	6/15	6/22	0
SSEI	1986	6/15	6/22	Confidential
SSEI	1987	6/18	6/23	Confidential
SSEI	1988	6/5	6/10	Confidential
SSEI	1989	6/22	6/27	Confidential
SSEI	1990	6/15	6/18	0
SSEI	1991	6/21	6/23	Confidential
SSEI	1992	6/23	6/25	Confidential
SSEI	1993	6/25	6/27	0
SSEI	1994	6/15	6/17	0
SSEI	1995	6/20	6/22	0
SSEI	1996	6/8	6/10	0
SSEI	1997	9/1	11/15	26
SSEI	1998	9/1	11/15	13
SSEI	1999	9/1	11/15	12
SSEI	2000	9/1	11/15	22
SSEI	2001	9/1	11/15	18
SSEI	2002	9/1	11/15	15

Table 6. Length-Weight Relationship (cm-kg) for Sablefish in the SSEI Subdistrict of Southeast Alaska ($W=aL^b$) for 1988 through 2000 Survey Data.

	Males	Females
a	5.89E-06	5.89E-06
b	3.129155	3.129155
n	1277	1147

Table 7. Growth parameters for sablefish in Southeast Alaska from 1988 through 2000 survey data.

	Male	Female
L	66.40445	74.56844
K	0.148888	0.144188
T⁰	-6.28531	-5.1971

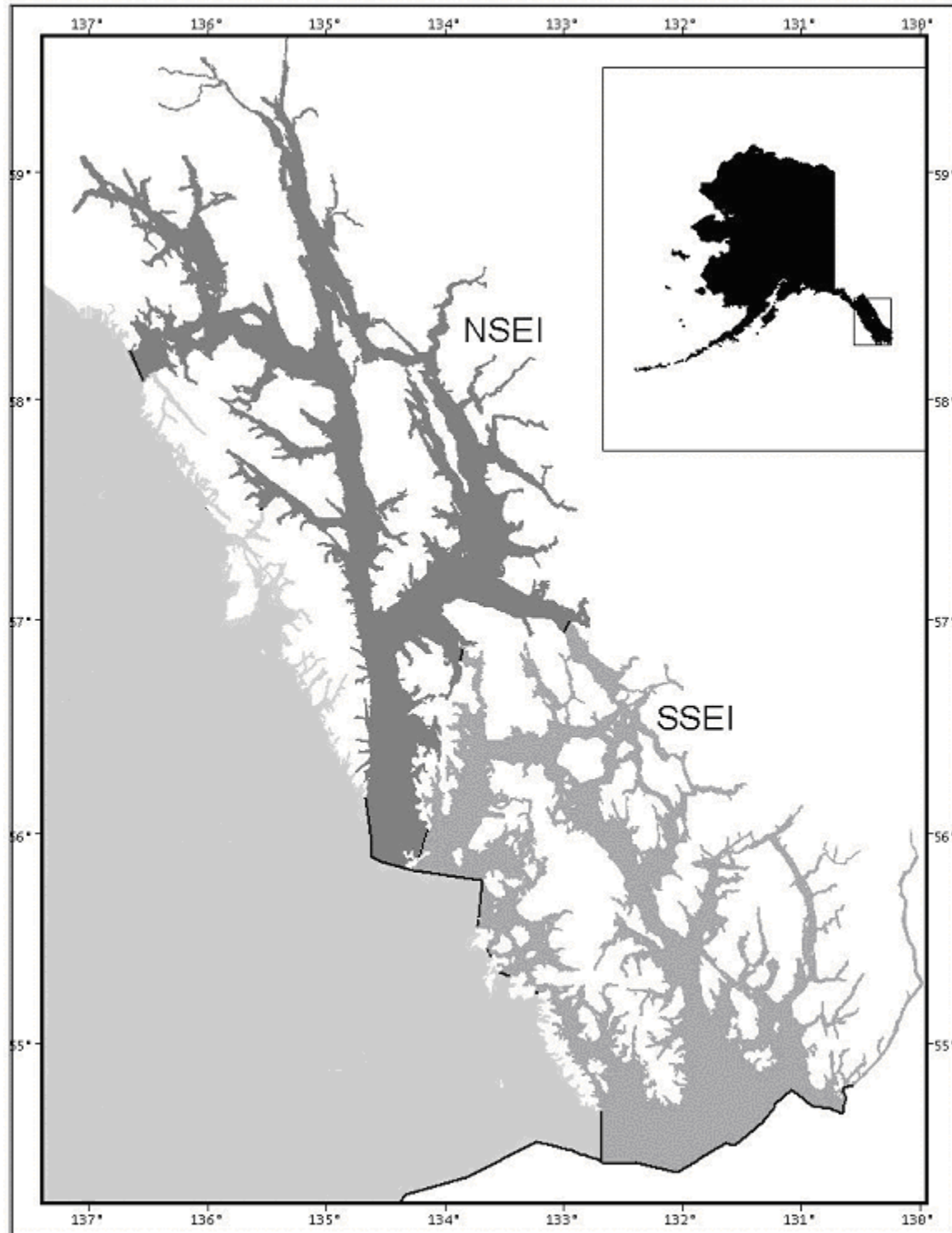


Figure 1. Management subdistricts for the state sablefish fisheries in Southeast Alaska.

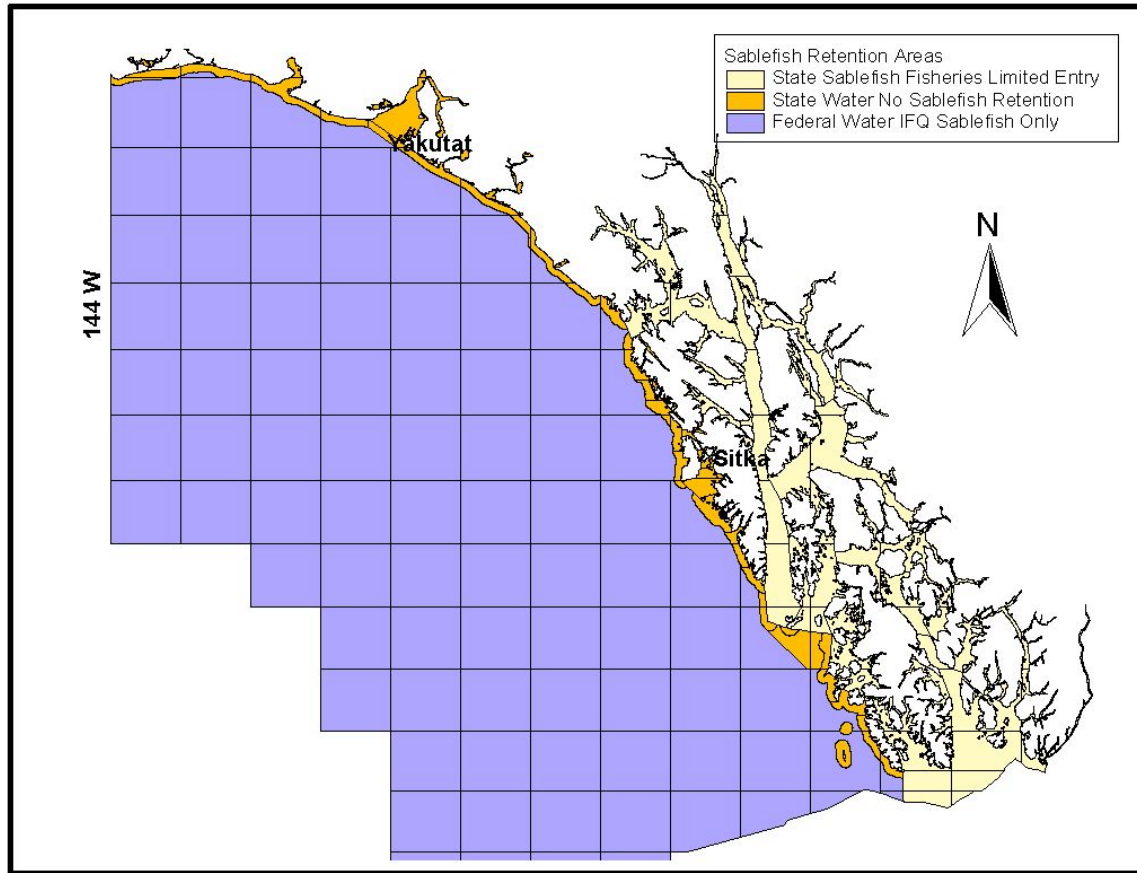


Figure 2. Areas closed to sablefish retention in Southeast Alaska.

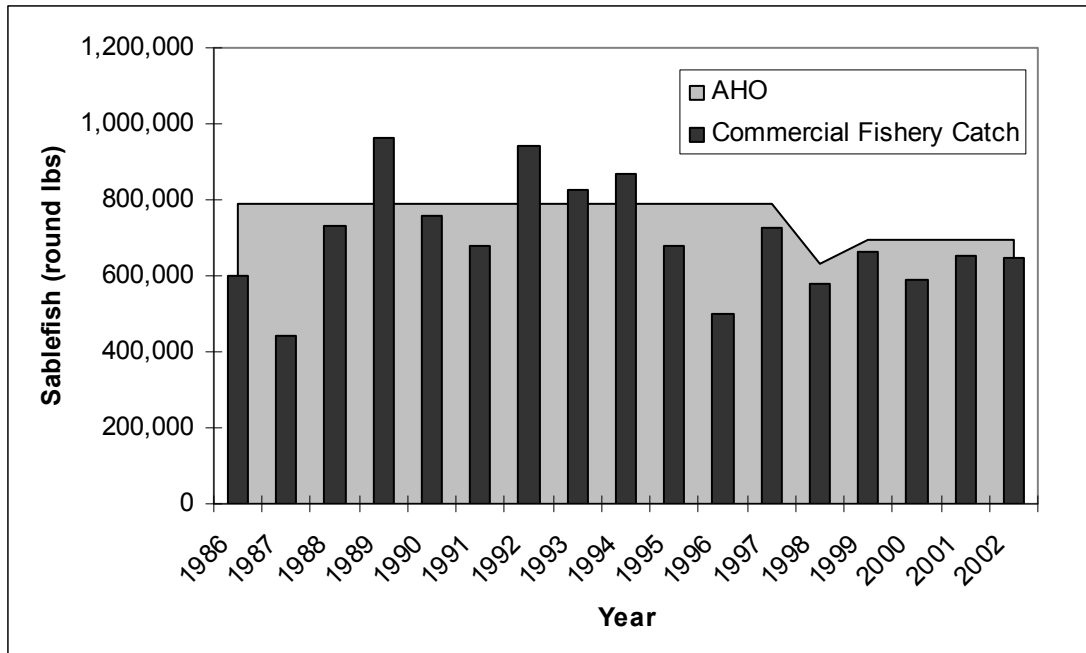


Figure 3. Annual harvest objective vs. commercial catch in the SSEI sablefish fishery from 1988 to 2002.

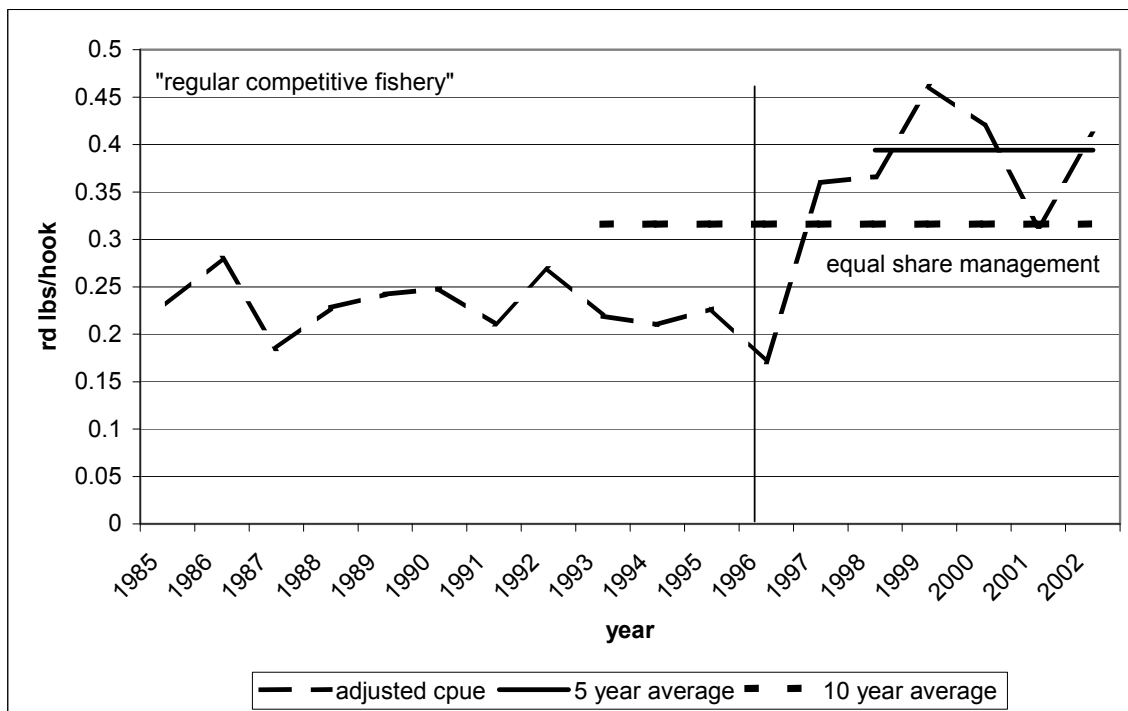


Figure 4. SSEI commercial longline CPUE.

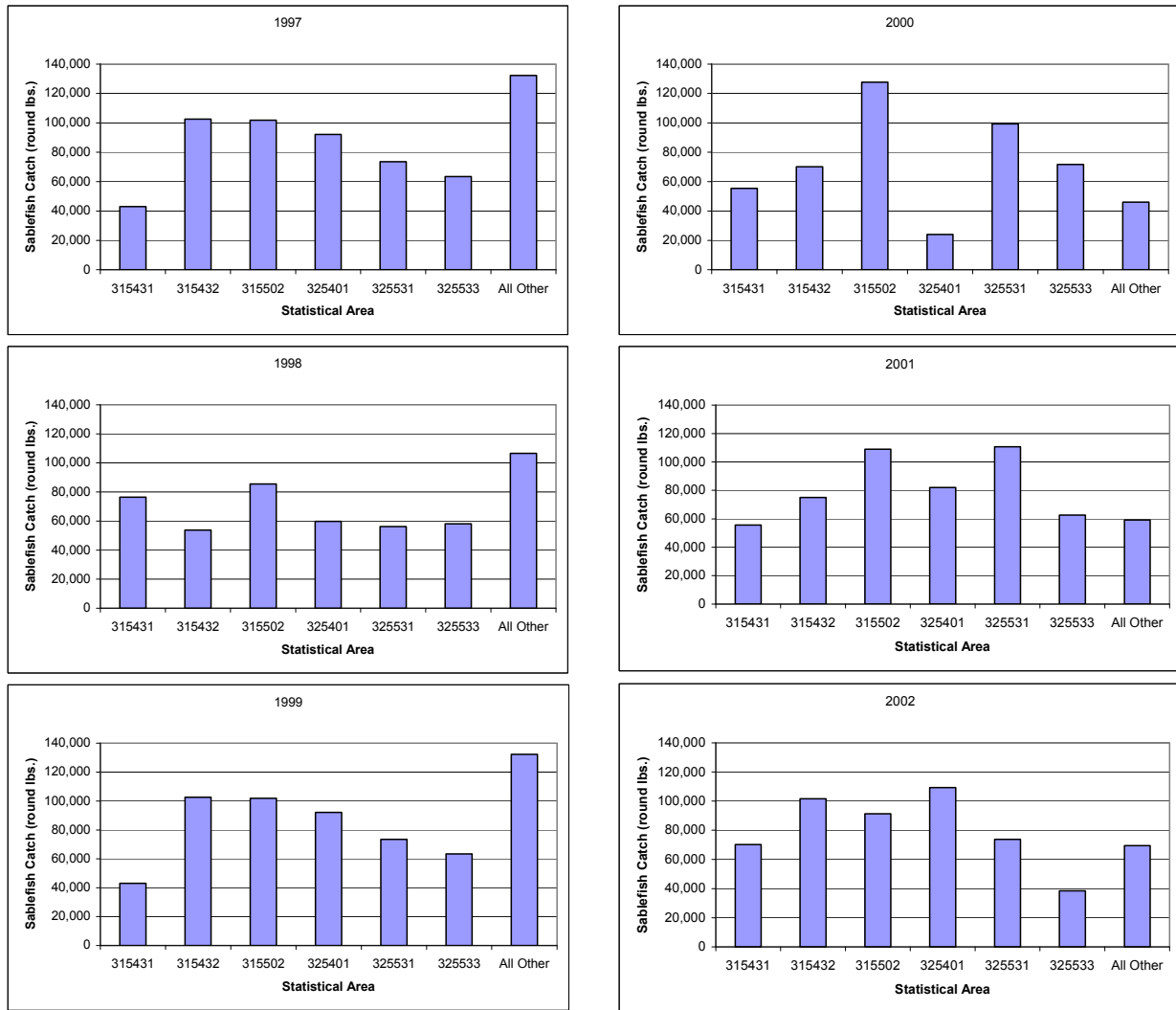


Figure 5. Changes in fishery distribution expressed as a percent of total catch.

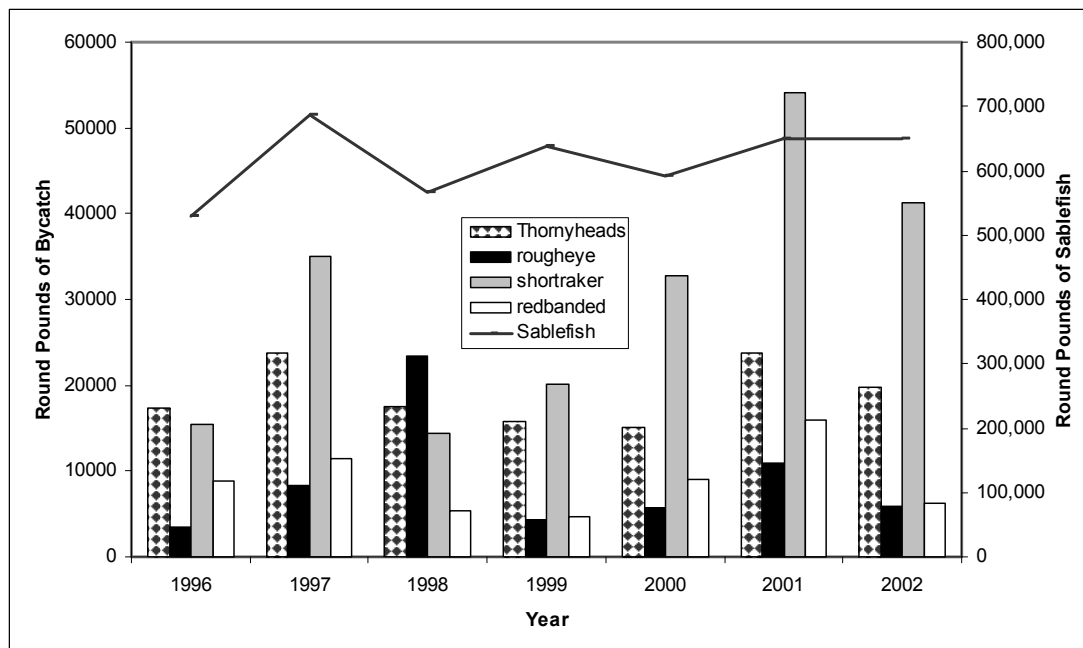


Figure 6. Bycatch landed in the SSEI sablefish fishery from 1996-2002.

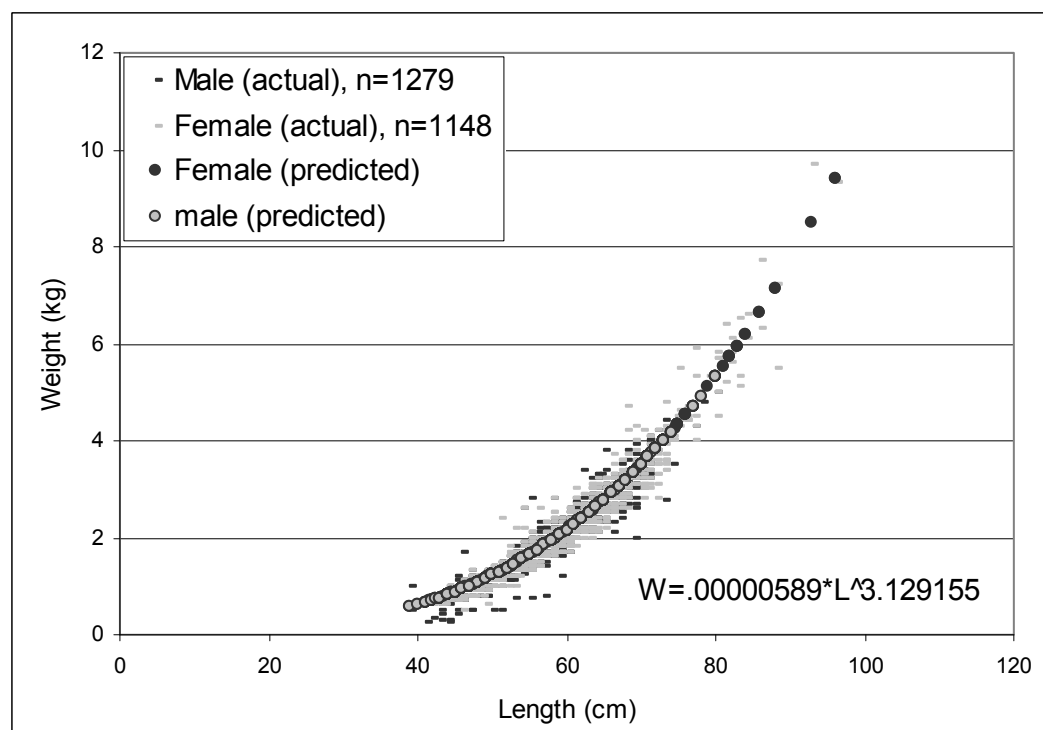


Figure 7. Length-weight relationship, from survey data 1988–2001, for sablefish in SSEI.

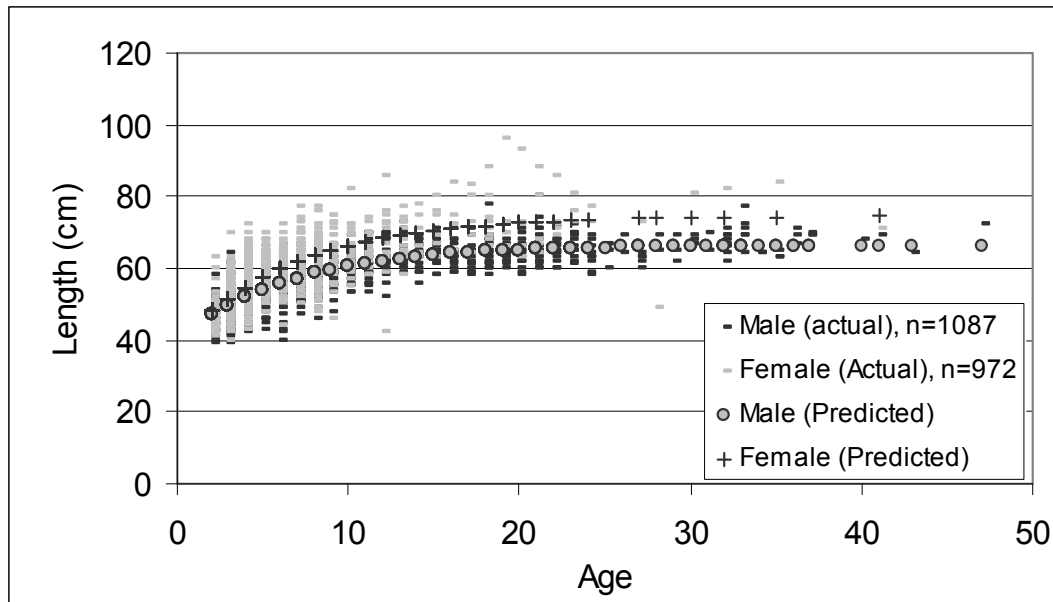


Figure 8. Von Bertalanffy length-age relationship, from survey data 1988–2000, for sablefish in SSEI.

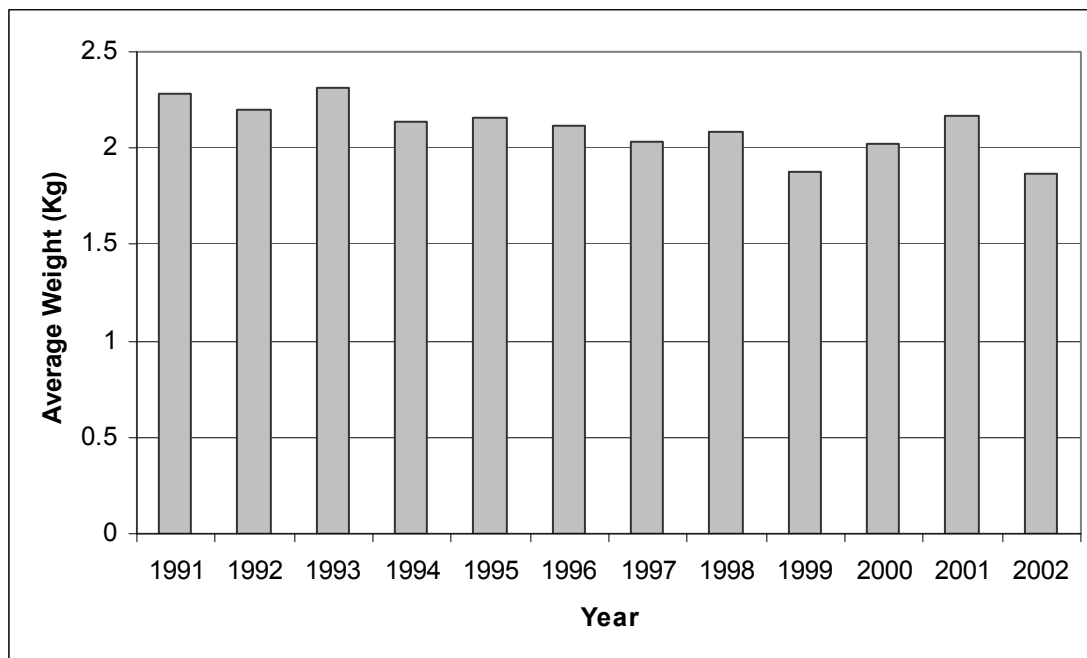


Figure 9. Average weight of sablefish caught in the SSEI surveys from 1991–2002.

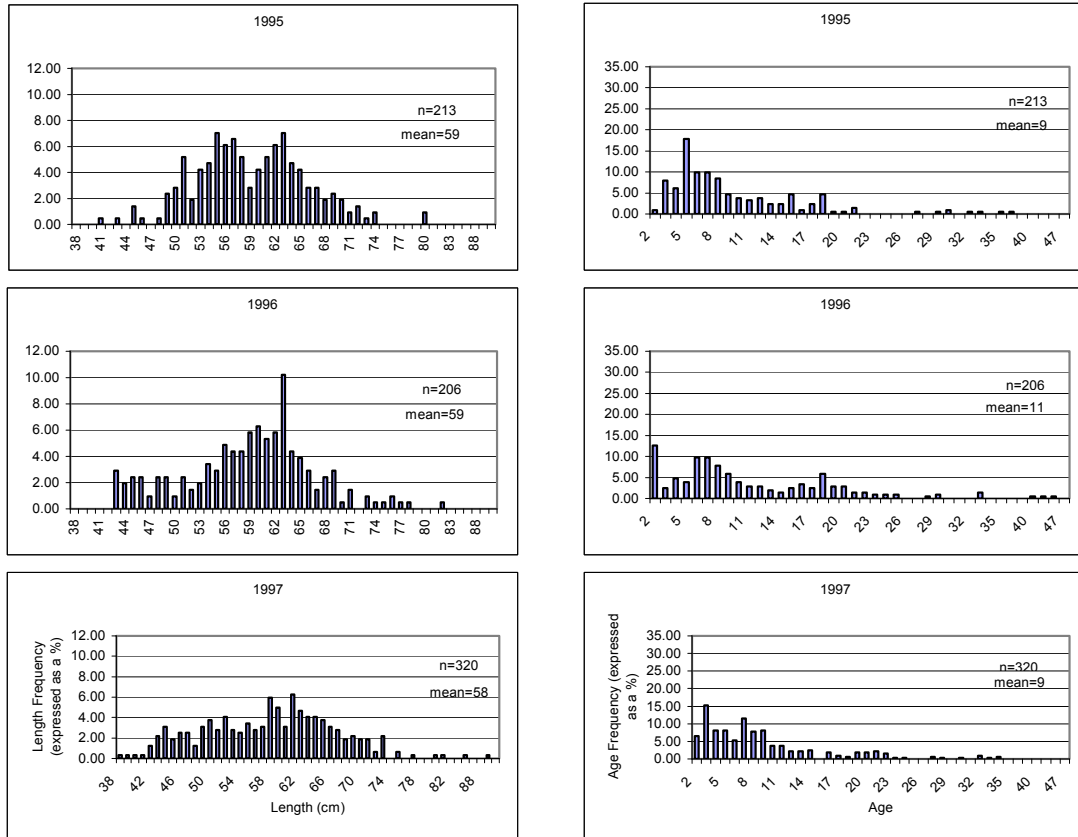


Figure 10a. Length and age frequency distributions, from 1995–1997 survey data, for sablefish in SSEI.

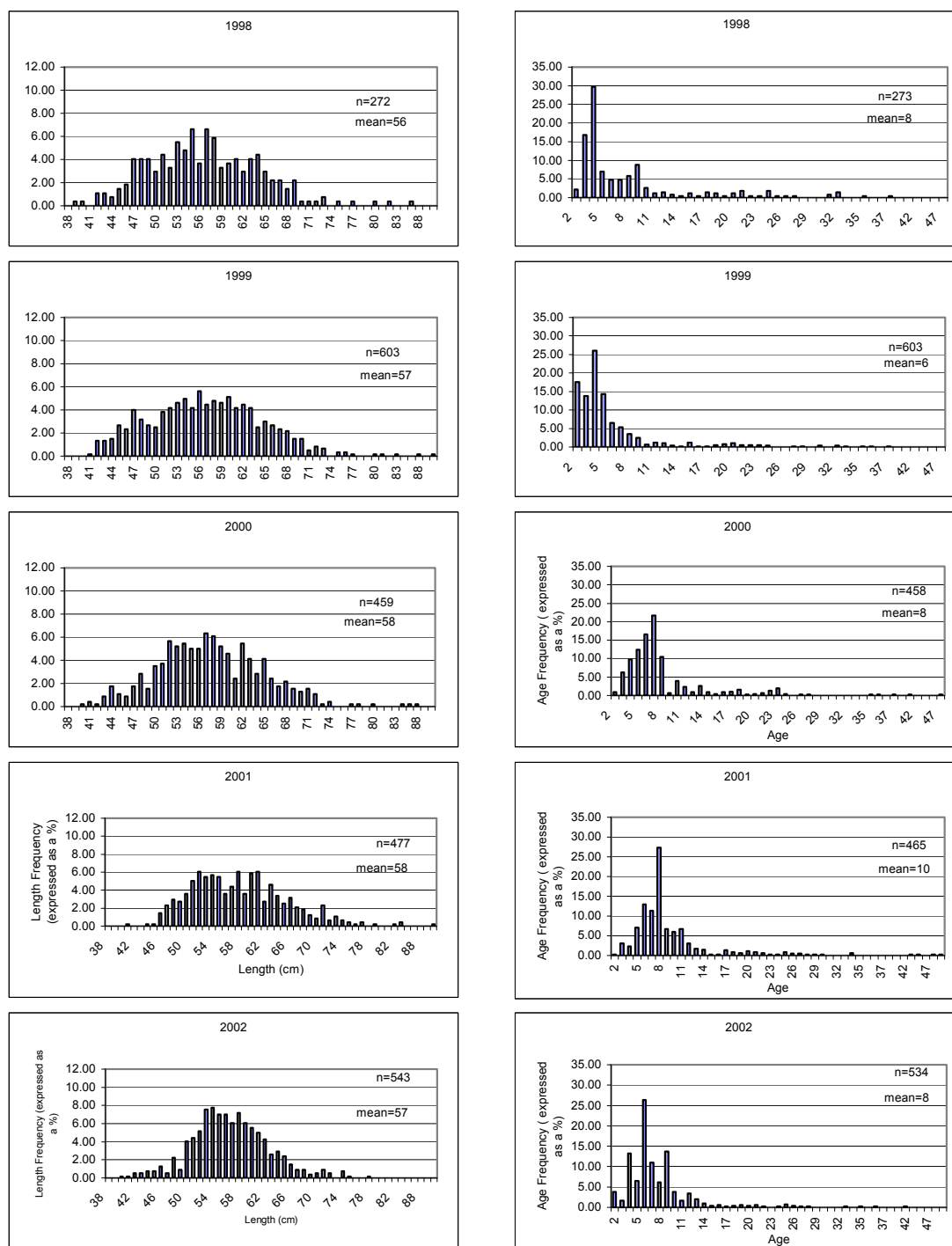


Figure 10b. Length and age frequency distributions, from 1998–2002 survey data, for sablefish in SSEI.

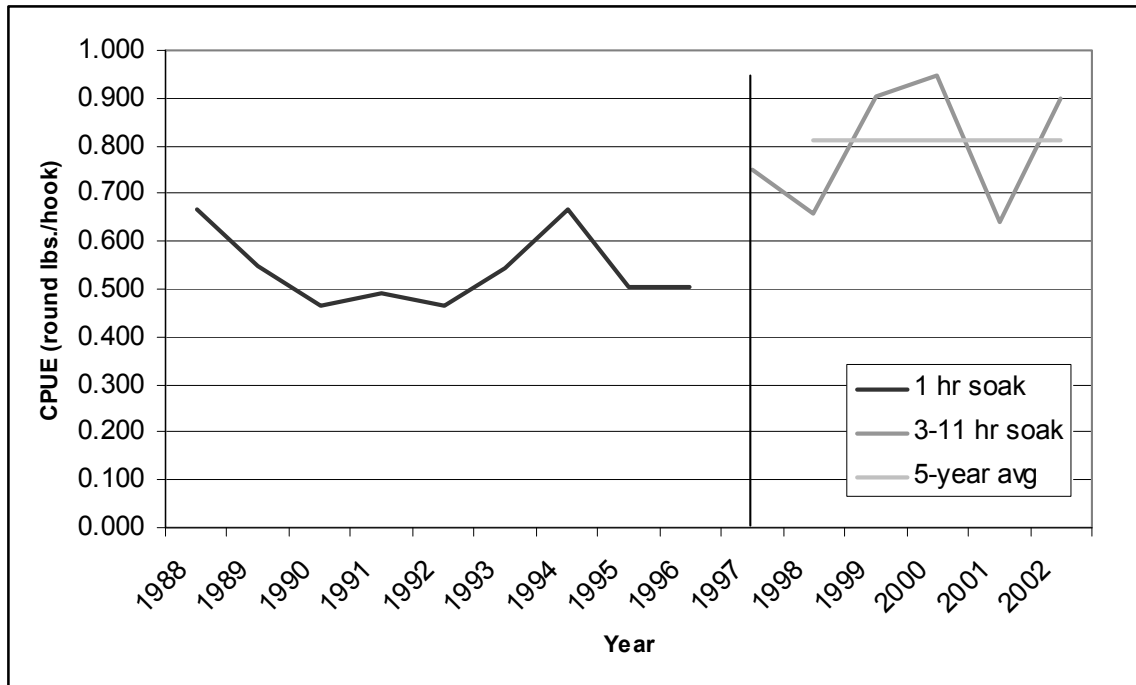


Figure 11. Sablefish CPUE for the SSEI longline Survey.

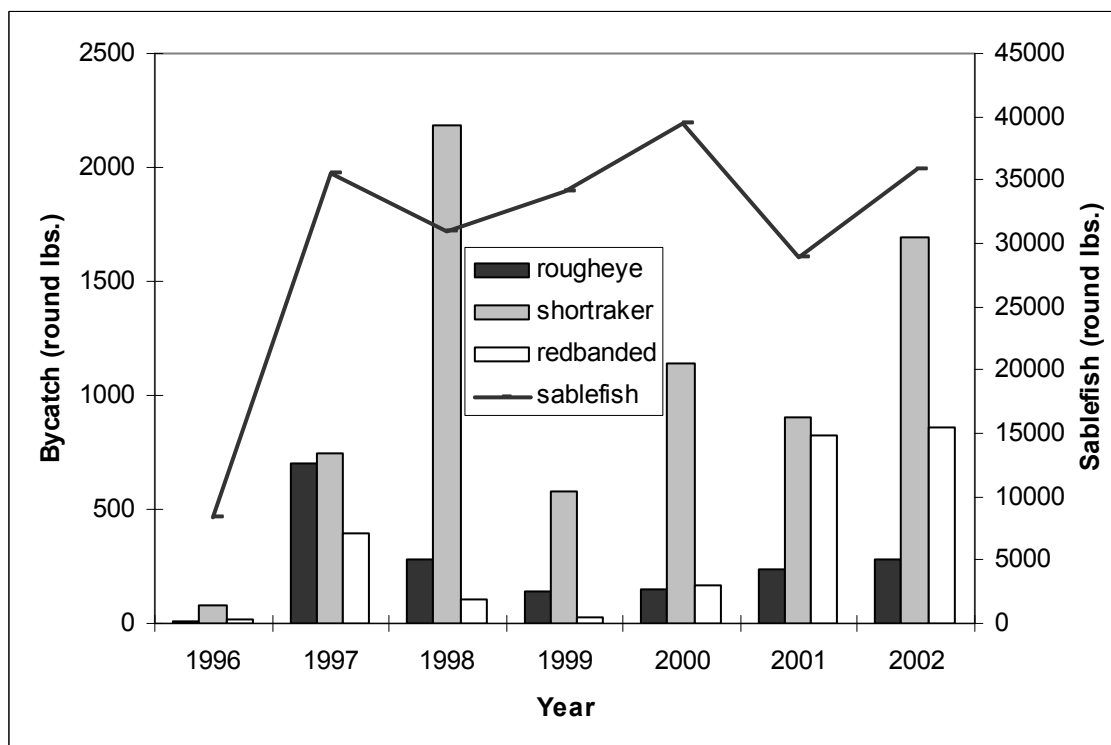


Figure 12. Bycatch landed in the SSEI longline survey from 1995–2001.

APPENDIX

Appendix A. Listing of ADF&G Region I Commercial Fisheries Groundfish Personnel.

Andy McGregor, Regional Research Supervisor Scott Kelley, Regional Management Supervisor Deidra Holum, Fishery Technician IV	Douglas Office 802 3 rd Street Douglas, AK 99824 (907) 465-4250
Tory O'Connell, Groundfish Project Leader Cleo Brylinsky, Fishery Biologist II Eric Coonradt, Fishery Biologist II Mike Vaughn, Fishery Biologist I Kamala Carroll, Fishery Technician II	Sitka 304 Lake Street, Room 103 Sitka, AK 99835 (907) 747-6688
Beverly Richardson, Research Analyst II	Petersburg 16 Sing Lee Alley Box 667 Petersburg, AK 99833 (907) 772-3801
Sue Domenowske, Fishery Technician III	Craig 333 Cold Storage Road, Suite 302 Box 668 Craig, AK 99921 (907) 826-2563

For commercial permits and vessel license applications contact:

State of Alaska **Commercial Fisheries Entry Commission** (907) 789-6150

National Marine Fisheries Service, Alaska Regional Office (907) 586-7229

Restricted Access Management program (RAM), P.O. Box 21668, Juneau, AK 99802-1668,
(907)-586-7202

ADF&G LONGLINE - POT FISHERY LOGBOOK

PERMIT HOLDER _____ TARGET SPECIES _____ CREW SIZE (includes skipper) _____
 VESSEL NAME _____ PORT OF LANDING _____
 ADF&G NUMBER _____ DATE LEFT PORT _____
 SKIPPER NAME _____ DATE OF LANDING _____

SYSTEM USED

CONV ☐ SNAP ☐
 OTHER (explain) _____

LONGLINE GEAR			
HOOK SIZE/TYPE	SKATELINE SIZE	HOOK SPACING	NUMBER OF HOOKS/SKATE

POT GEAR		
POT DIMENSIONS (ft)	GROUNDLINE WT. OR DIAMETER	POT SPACING (ft)

BAIT(S) USED	%

SET NO.	DATE SET	TIME SET	Lat/Lon Beginning	DATE HAULED	TIME HAULED	Lat/Lon End	AVERAGE DEPTH (fm)	NO. SKATES OR POTS SET	LOST GEAR Y/N - (HOW MUCH?)	COMMENTS/TAGS ATTACH TAGS HERE FOR THIS SET				
CATCH DATA for this set in NUMBERS or POUNDS (use round weights) - Include All Bycatch			TARGET	AMOUNT	SPECIES	AMOUNT	SPECIES	AMOUNT	SPECIES	AMOUNT	SPECIES	AMOUNT	SPECIES	AMOUNT
CATCH DATA for this set in NUMBERS or POUNDS (use round weights) - Include All Bycatch			TARGET	AMOUNT	SPECIES	AMOUNT	SPECIES	AMOUNT	SPECIES	AMOUNT	SPECIES	AMOUNT	SPECIES	AMOUNT
CATCH DATA for this set in NUMBERS or POUNDS (use round weights) - Include All Bycatch			TARGET	AMOUNT	SPECIES	AMOUNT	SPECIES	AMOUNT	SPECIES	AMOUNT	SPECIES	AMOUNT	SPECIES	AMOUNT

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